

MAC Address Configuration Commands

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Chapter 1 MAC Address Configuration Commands

1.1 MAC Address Configuration Commands

1.1.1 mac address-table static

Syntax

To add a static MAC address, run `mac address-table static mac-addr vlan vlan-id interface interface-id`. To cancel the static MAC address, run `no mac address-table static mac-addr vlan vlan-id interface interface-id`.

`mac address-table static mac-addr vlan vlan-id interface interface-id`

[no] mac address-table static *mac-addr* **vlan** *vlan-id* **interface** *interface-id*

Parameters

Parameters	Description
<i>mac-addr</i>	MAC address Value range: H.H.H
<i>vlan-id</i>	A VLAN that the MAC address belongs to Value range: 1-4094
<i>interface-id</i>	Physical port that the MAC address belongs to

Default Value

None

Command Mode

Global configuration mode

Usage Guidelines

This command is configured in global configuration mode.

Example

The following example shows how to bind MAC address 0004.5600.67ab to port GigaEthernet0/2 of VLAN1.

```
Switch_config# mac address-table static 0004.5600.67ab vlan 1 interface GigaEthernet0/2
```

1.1.2 mac address-table blackhole

Syntax

Add/Delete a blackhole MAC address, run the following command.

[no] mac address-table blackhole *mac-addr* **vlan *vlan-id***

Parameters

Parameters	Description
<i>mac-addr</i>	MAC address. The value range: H.H.H
<i>vlan-id</i>	VLAN belonged to the MAC address. The value ranges from 1 to 4094.

Default Value

None

Command Mode

Global configuration mode

Usage Guidelines

The command must be configured in the global configuration mode.

If the source MAC address or the destination MAC address matches with the black hole MAC address of the packet, the packet will be dropped.

Example

The following example shows how to set the black hole MAC address to 0004.5600.67ac VLAN1.

```
Switch_config# mac address-table blackhole 0004.5600.67ac vlan 1
```

1.1.3 mac address-table aging-time

Syntax

To configure the aging time of the MAC address table, run the following command.

mac address-table aging-time [0 | 10-1000000]

Parameters

Parameters	Description
0	Means that the MAC address never ages.
10-1000000	Aging time of the MAC address whose unit is second

Default Value

300s.

Command Mode

Global configuration mode

Usage Guidelines

This command is configured in global configuration mode.

Example

The following example shows how to set the aging time of the MAC address to 100 seconds.

```
Switch_config# mac address-table aging-time 100
```

1.1.4 show mac address-table

Syntax

To display the MAC address table of the OLT, run `show mac address-table {dynamic [interface interface-id | vlan vlan-id] | static}`.

show mac address-table [**dynamic** [**interface** *interface-id* | **vlan** *vlan-id*] | **static** | **brief** | **multicast** | **interface** *interface-id* | **vlan** *vlan-id* | **H.H.H**]

Parameters

Parameters	Description
dynamic	Dynamically-learned MAC address table
<i>interface-id</i>	Name of an interface
<i>vlan-id</i>	VLAN ID Value range: 1-4094
static	Static MAC address table
brief	Brief information about the MAC address
multicast	Multicast MAC address table
Interface	Interface's MAC address table

Vlan	Vlan mac address table
blackhole	Black hole MAC address table
H.H.H	Specific address

Default Value

None

Command Mode

Other modes except the user mode

Usage Guidelines

This command is used to display the MAC address table.

Example

The following example shows how to display all dynamic MAC address tables.

```
Switch# show mac addr dynamic
```

Mac Address Table (Total 9)

Vlan	Mac Address	Type	Ports
----	-----	----	-----
1	12ab.45fe.0a02	DYNAMIC	gpon0/1:1-1
1	0000.0000.0001	DYNAMIC	gpon0/1:1-1
1	10ab.45fe.0a03	DYNAMIC	gpon0/1:1-1
1	10ab.45fe.0a04	DYNAMIC	gpon0/1:1-1
1	20f4.1b60.5172	DYNAMIC	g0/1
1	0000.0000.0003	DYNAMIC	gpon0/1:1-1
1	10ab.45fe.0a05	DYNAMIC	gpon0/1:1-1
1	10ab.45fe.0a02	DYNAMIC	gpon0/1:1-1
1	10ab.45fe.0a06	DYNAMIC	gpon0/1:1-1

1.1.5 clear mac address-table

Syntax

To delete the dynamic MAC address, run the following command.

```
clear mac address-table dynamic [address mac-addr | interface interface-id |  
vlan vlan-id]
```

Parameters

Parameters	Description
<i>address mac-addr</i>	MAC address Value range: H.H.H
<i>interface-id</i>	Means a name of a L2 interface.
<i>vlan-id</i>	VLAN ID Value range: 1-4094

Default Value

None

Command Mode

EXEC

Usage Guidelines

This command is used in EXEC mode.

Example

The following example shows how to clear all dynamically-learned MAC addresses on interface g0/2.

```
Switch# clear mac address-table dynamic interface g0/2
```